

REMARKS

1. Claims 2 and 4 fulfill the requirements of 35 U.S.C. §112.

Claims 2 and 4 stand rejected on 35 U.S.C. §112, second paragraph grounds for being indefinite for reciting hybridization under "high stringency conditions." The Patent Office takes the position that the art has "no defining set of conditions recited in the claims or described in the instant specification." Moreover, the Office Action opines that the limitation is "conditional" and no explicit set of conditions are recited.

Applicants respectfully contend that the term is understood in the art to include, generally, that the hybridization occurs under conditions of 0.1X saline-sodium citrate (SSC) and 0.1% sodium dodecylsulfate (SDS) at a temperature of 65°C, as evidenced by several contemporary reference books in the art (such as the Maniatis cloning manual). Applicants have amended the claims to recite this limitation explicitly, and respectfully contend that this claim limitation is thus not indefinite or undefined.

Applicants thus respectfully contend that their amendment has overcome the asserted ground of rejection on 35 U.S.C. §112, second paragraph, and request that the Examiner withdraw this rejection.

2. Claims 1-4 are novel under 35 U.S.C. §102.

Claims 1-4 stand rejected under 35 U.S.C. §102(b) over the teachings of the Wouters reference. Applicants reiterate their contention that this reference does not disclose the nature or identity of the dopamine-binding species in the microsomal fraction of mammalian brain described in the reference. Contrary to the assertions in the Office Action, there is no teaching in the Wouters reference that would inform one having ordinary skill in the art whether the disclosed dopamine binding activity in the microsomal fraction described in the Wouters reference is a D1 or D2 dopamine receptor (i.e., which of the two distinct dopamine receptors contained in the mammalian brain, as set forth in Applicants' specification). Nor is there any teaching that the dopamine binding activity disclosed in the microsomal preparation of Wouters is a mammalian D2 dopamine receptor rather than one of the several other dopamine receptor species have been identified in mammalian brain after the priority date of the instant specification and after the publication date of the Wouters

reference. Moreover, the pending claims positively recite specific amino acid sequences that identify the claimed dopamine receptors comprising the membrane preparations of the invention; there is no evidence that it is one of these species, rather than the plurality of other dopamine receptor species in mammalian brain, responsible for the dopamine binding activity disclosed in the Wouters reference, nor is there any evidence of record that the microsomal fractions reported by Wouters contain the D2 dopamine receptor species of the claimed invention.

However, in an effort to expedite allowance of the pending claims, Applicants have amended claim 1 to recite that the claimed membrane preparations are obtained from a cell that expresses an exogenous gene encoding a mammalian D2 dopamine receptor having the recited amino acid sequence. Applicants respectfully contend that this amendment overcomes the asserted ground of rejection, and request the Examiner to withdraw the rejection.

With regard to the distinction regarding the purported "product by process" limitation, Applicants note that there is no evidence of record that either the rat D2 dopamine receptor (disclosed in Fig. 7A-C) and the human D2 dopamine receptor wherein amino acids 242-270 are deleted are expressed in the cells disclosed in the Wouters reference. In addition, there is no evidence of record that the dopamine binding activity (of undefined and undisclosed nature) disclosed in the Wouters reference has an amino acid sequence as set forth in Fig. 18A through 18H. Thus, Applicants respectfully contend that the Wouters reference does not anticipate independent claim 3 (or dependent claim 4), and request the Examiner withdraw this ground of rejection.

Applicants also present new claims 20-23. Independent Claim 20 recites that the membrane preparation "homogeneously comprises no other mammalian dopamine receptor type." Independent claim 22 recites that the membrane preparation "homogeneously contains dopamine receptors that are none other than said mammalian D2 dopamine receptor." Applicants respectfully contend that these claims are also not anticipated by the teachings of the Wouters reference.

CONCLUSIONS

Applicants respectfully contend that all conditions of patentability have been met and that the pending claims are in condition for allowance. Allowance of the pending claims is therefore respectfully solicited.

If the Examiner in charge of this application believes it to be helpful, she is invited to contact the undersigned attorney by telephone at (312) 913-0001.

Respectfully submitted,
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